

## REMARKS

Claims 12-14, and 24-27 have been amended. Claims 35-44 have been added. Thus, Claims 12-44 are pending in this application.

### I. Claim Objections

Claims 13, 17, 25, and 28 have been objected to because of informalities. Applicant thanks the Examiner for pointing out these informalities. Claims 12 and 24 have been amended to now include that the coolant circulation loop is in communication with the heat sink lumen which more accurately describes the proper relationship of these elements. Claims 13 and 25 have been amended to remove the "additional heat sink."

### II. Claim Rejection under 35 U.S.C. §112

Claims 19-20, 22, 30-31, and 33 have been rejected under 35 U.S.C. §112, second paragraph for failing to set forth the subject matter which applicants regard as their invention. Applicant respectfully disagrees. This group of claims refers to a specific embodiment which is disclosed on page 10, paragraph [0027] of the specification. This paragraph refers to the possibility of eliminating the mounting flange 206 and, thus, attach the transistor directly to the PCB 212 by other means. For example, the transistor may be attached directly to an integral conductive foil layer on the surface of the PCB. Thus, the electronic device 200 is the heat generating device wherein the bottom surface is in this second embodiment, the surface of a transistor.

### III. Claim Rejection under 35 U.S.C. §102

The Examiner rejected claims 12-17, 18, 23, 24-28, 29, and 34 under 35 U.S.C. §102(b) as being anticipated by Batchelder. The Examiner stated that Crawford teaches an assembly having all the limitations of the above mentioned claims. Applicants amended independent claim 12. Therefore, Applicants respectfully disagree because the present independent claim now includes limitations that are neither disclosed nor suggested in Batchelder.

According to the amended independent claim 12, the thermal management system includes a heat sink that is separate from the printed circuit board (PCB). All figures show this limitation.. Therefore, no new matter has been introduced.

Furthermore, Batchelder does not teach the limitation of "one part of the loop is formed in a layer of the PCB" as required by the independent claims. Fig. 3 of Batchelder shows with numeral 60 to the direction of the fluid circulation within the flow channels 50. See col. 5, ln. 28. The cross sectional view of the embodiment clearly shows that the flow channels 50 are contained within the active spreader plate 20 which is in turn "*laminated to the back side of a printed circuit board.*" See col. 5, ln. 65. Applicants, therefore, take the view that Bactchelder is different from the present invention and does not anticipate claims 12-17, 18, 24-28, 29, and 34.

#### **IV. Claim Rejection under 35 U.S.C. §103**

The Examiner rejected claims 21 and 32 under 35 U.S.C. §103(a) as being unpatentable over Batchelder. As discussed above, Batchelder does not teach all the limitations of the present claims. These claims are dependent claims and, thus, include all the limitations of the respective independent claims. Therefore, these claims are patentable at least to the extent of the respective independent claims.

#### **SUMMARY**

In light of the above remarks, reconsideration and withdrawal of the outstanding rejection is respectfully requested. It is further submitted that the application is now in condition for allowance and early notice of the same is earnestly solicited. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the agent of record by telephone or facsimile.

Applicants do not believe that any other fees are due at this time; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason relating to this document, the Commissioner is authorized to deduct the fees from Deposit Account No. 02-0383, (*formerly Baker & Botts, L.L.P.*,) Order Number 068736.0111.

Respectfully submitted,  
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